

Fig.1

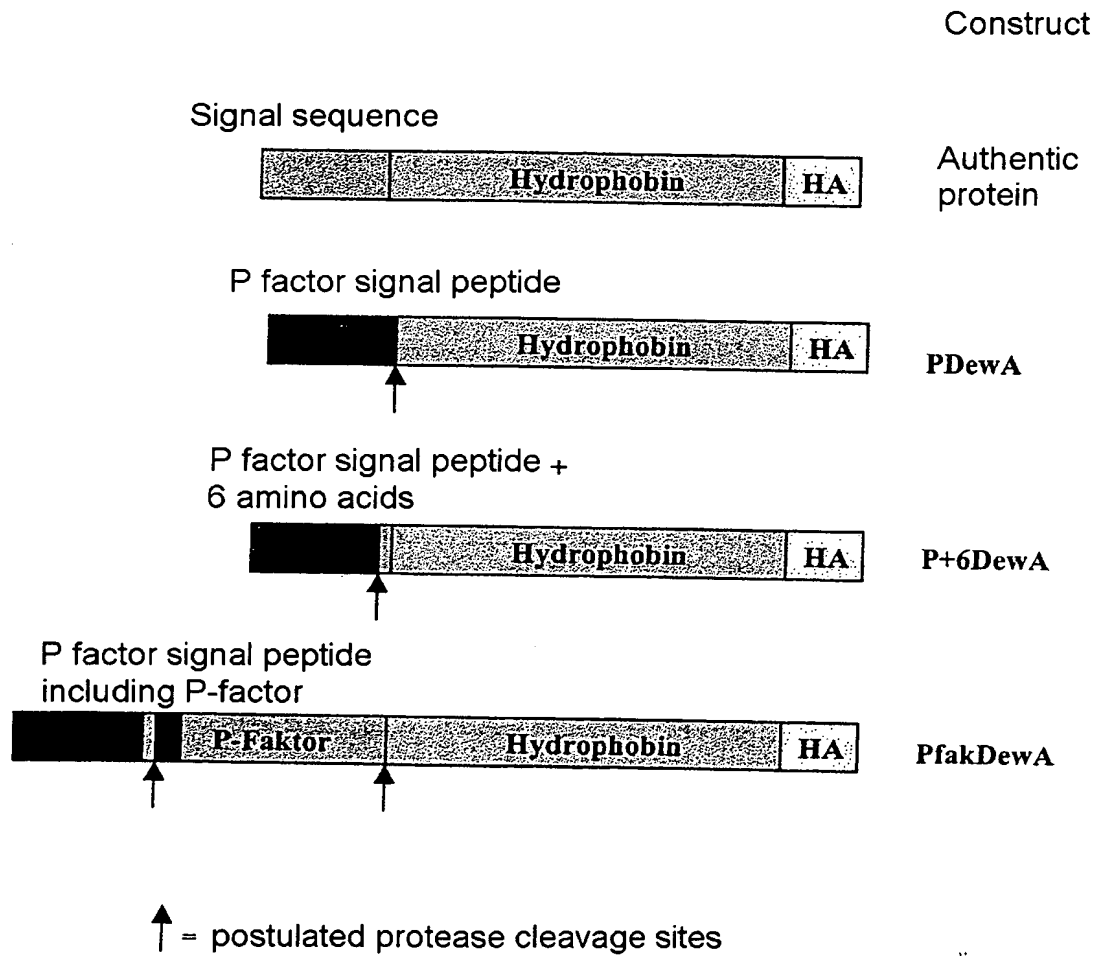
Constructs for secretion of *S. pombe* hydrophobins

Fig. 2

A) Genomic sequence of the DewA gene:

(the sequences of the two introns are underlined)

ATGCGCTTCA TCGTCTCTCT CCTCGCCTTC ACTGCCGCGG CCACCGCAAC CGCCCTCCCG
 GCCTCTGCCG CAAAGAACGC GAAGCTGGCC ACCTCGGCGG CCTTCGCCAA GCAGGCTGAA
 GGCACCACCT GCAATGTCGG CTCGATCGCT TGCTGCAACT CCCCCTGTA GACCAACAAC
 GACAGTCTGT TGAGCGGTCT GCTCGGTGCT GGCCTTCTCA ACGGGCTCTC GGGCAACACT
 GGCAGCGCCT GCGCCAAGGC GAGCTTGATT GACCAGCTGG GTCTGCTCGG TACGTGATCC
CCACTCAGTC GCTCCCGGAG AGGCTGAGGG AAGACGAGCG ACGGTCTAGA AATGGTGTGC
TAATAGATGC ATGTGTGCAG CTCTCGTCGA CCACACTGAG GAAGGCCCG TCTGCAAGAA
 CATCGTCGCT TGCTGCCCTG AGGGAACCAC CAACGTACGT CTTTCAGATC TGCTACAAGT
 GAGGCGATCA AACTAACAT ATTCCAGTGT GTTGCCGTCG ACAACGCTGG CGCCGGTACC
 AAGGCTGAGT AA

B) Sequence of the *Aspergillus nidulans* DewA protein:

MRFIVSLLAF TAAATATALP ASAAKNAKLA TSAAFKQAE GTTCNVGSIA CCNSPAETNN
 DSLLSGLLGA GLLNLSGNT GSACAKASLI DQLGLLALVD HTEEGPVCKN IVACCPEGTT
 NCVAVDNAGA GTKAE

(ATGCGCTTCA TCGTCTCTCT CCTCGCCTTC ACTGCCGCGG CCACCGCAAC CGCCCTCCCG
 GCCTCTGCCG CAAAGAACGC GAAGCTGGCC ACCTCGGCGG CCTTCGCCAA GCAGGCTGAA
 GGCACCACCT GCAATGTCGG CTCGATCGCT TGCTGCAACT CCCCCTGTA GACCAACAAC
 GACAGTCTGT TGAGCGGTCT GCTCGGTGCT GGCCTTCTCA ACGGGCTCTC GGGCAACACT
 GGCAGCGCCT GCGCCAAGGC GAGCTTGATT GACCAGCTGG GTCTGCTCGC TCTCGTCGAC
 CACACTGAGG AAGGCCCGT CTGCAAGAAC ATCGTCGCTT GCTGCCCTGA GGAACCACC
 AACTGTGTTG CCGTCGACAA CGTGGCGCC GGTACCAAGG CTGAGTAA)

C) Ha-Tag sequence:

LVPRGSIEGR GGRIFYPYDV PDYAGYPYDV PDYAGSYFYD VPDYAAQCGR
 (CTGGT TCCGCGTGGA TCCATCGAAG GTCGTGGCGG CCGCATCTTT TACCCATACG
 ATGTTCCCTGA CTATGCGGGC TATCCCTATG ACGTCCCGGA CTATGCAGGA TCCTATCCAT
 ATGACGTTCC AGATTACGCT GCTCAGTGCG GCCGCTAATA G)

Fig.3**A) Sequence of the P-factor pre-protein:**

MKITAVIALL FSLAAASPIP VADPGVSVS KSYADFLRVY QSWNTFANPD RPNLKKREFE
 AAPAKTYADF LRAYQSWNTF VNPDRPNLKK REFEEAPEKS YADFLRAYHS WNTFVNPDPR
 NLKKREFEAA PAKTYADFLR AYQSWNTFVN PDRPNLKKRT EDEENEED EYYRFLQFY
 IMTVPENSTI TDVNITAKFE S
 (ATGAAGATCA CCGCTGTCAT TGCCCTTTTA TTCTCACTTG CTGCTGCCTC ACCTATTCCA
 GTTGCCGATC CTGGTGTGGT TTCAGTTAGC AAGTCATATG CTGATTTCTT TCGTGTTTAC
 CAAAGTTGGA AACTTTTGC TAATCCTGAT AGACCCAAC TGA AAAAGCG CGAATTCGAA
 GCTGCTCCCG CAAAACTTA TGCTGATTTT CTTCTGCTT ATCAAAGTTG GAACACTTTT
 GTTAATCCTG ACAGACCCAA TTTGAAAAAG CGTGAGTTT AAGCTGCCCC AGAGAAGAGT
 TATGCTGATT TCCTTCGTGC TTACCATAGT TGGAACACTT TTGTTAATCC TGACAGACCC
 AACTTGAAAA AGCGCGAATT CGAAGCTGCT CCCGCAAAA CTTATGCTGA TTCCTTCGT
 GCTTACCAA GTTGGAACAC TTTTGTTAAT CCTGACAGAC CCAACTTGAA AAAGCGCACT
 GAAGAAGATG AAGAGAATGA GGAAGAGGAT GAAGAATACT ATCGCTTTCT TCAGTTTTAT
 ATCATGACTG TCCCAGAGAA TTCCACTATT ACAGATGTCA ATATTACTGC CAAATTTGAG
 AGCTAA)

B) Sequence of the removable signal peptide and of the P-factor pre-protein 6 amino acids downstream thereof:

MKITAVIALL FSLAAASPIP VADPGV
 (ATGAAGATCA CCGCTGTCAT TGCCCTTTTA TTCTCACTTG CTGCTGCCTC ACCTATTCCA
 GTTGCCGATC CTGGTGTGGT)

C) Sequence utilized for „P shuttle“:

MKITAVIALL FSLAAASPIP VADPGVSVS KSYADFLRVY QSWNTFANPD RPNLKKR
 (ATGAAGATCA CCGCTGTCAT TGCCCTTTTA TTCTCACTTG CTGCTGCCTC ACCTATTCCA
 GTTGCCGATC CTGGTGTGGT TTCAGTTAGC AAGTCATATG CTGATTTCTT TCGTGTTTAC
 CAAAGTTGGA AACTTTTGC TAATCCTGAT AGACCCAAC TGA AAAAGCG C)

Fig. 4

Fusion protein comprising the „P-shuttle“ sequence, the mature DewA and the C-terminally fused HA-Tag:

MKITAVIALL FSLAAASPIP VADPGVVSVS KSYADFLRVY QSWNTFANPD RPNLKKRLPA
SAAKNAKLAT SAAFAKQAEG TTCNVGSIAC CNSPAETNND SLLSGLLGAG LLNGLSGNTG
SACAKASLID QLGLLALVDH TEEGPVCKNI VACCPEGTTN CVAVDNAGAG TKAELVPRGS
 IEGRGGRIFY PYDVDPYAGY PYDVDPYAGS YPYDVDPYAA QCGR
 (ATGAAGATCA CCGCTGTCAT TGCCCTTTTA TTCTCACTTG CTGCTGCCTC ACCTATTCCA
 GTTGCCGATC CTGGTGTGGT TTCAGTTAGC AAGTCATATG CTGATTTTCCT TCGTGTTTAC
 CAAAGTTGGA ACACTTTTGC TAATCCTGAT AGACCCAAC TGA AAAAGCG CCTCCCGGCC
 TCTGCCGCAA AGAACGCGAA GCTGGCCACC TCGGCGGCCT TCGCCAAGCA GGCTGAAGGC
 ACCACCTGCA ATGTCGGCTC GATCGCTTGC TGCAACTCCC CCGCTGAGAC CAACAACGAC
 AGTCTGTTGA GCGGTCTGCT CCGTGCTGGC CTTCTCAACG GGCTCTCGGG CAACACTGGC
 AGCGCCTGCG CCAAGGCGAG CTTGATTGAC CAGCTGGGTC TGCTCGCTCT CGTCGACCAC
 ACTGAGGAAG GCCCCGTCTG CAAGAACATC GTCGCTTGCT GCCCTGAGGG AACCACCAAC
 TGTGTTGCCG TCGACAACGC TGGCGCCGCT ACCAAGGCTG AGCTGGTTCC GCGTGATCC
 ATCGAAGGTC GTGGCGGCCG CATCTTTTAC CCATACGATG TTCTGACTA TCGGGGCTAT
 CCCTATGACG TCCCGGACTA TGCAGGATCC TATCCATATG ACGTTCCAGA TTACGCTGCT
 CAGTGCGGCC GCTAATAG)

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Fig.5

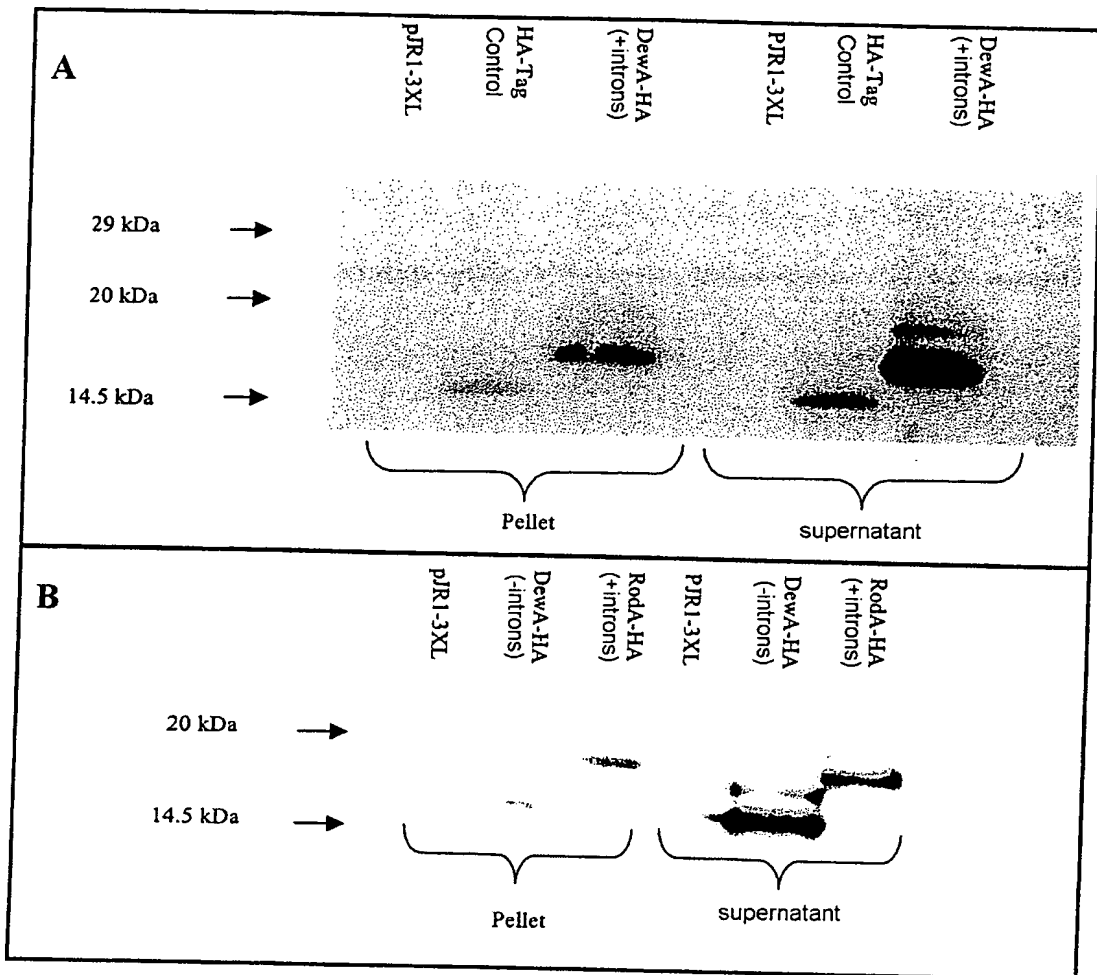


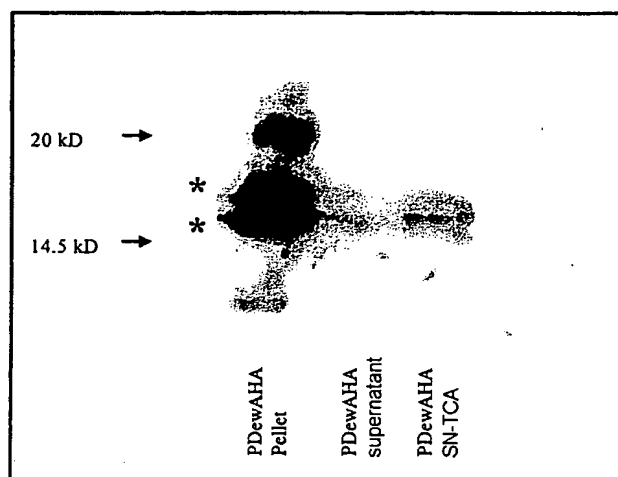
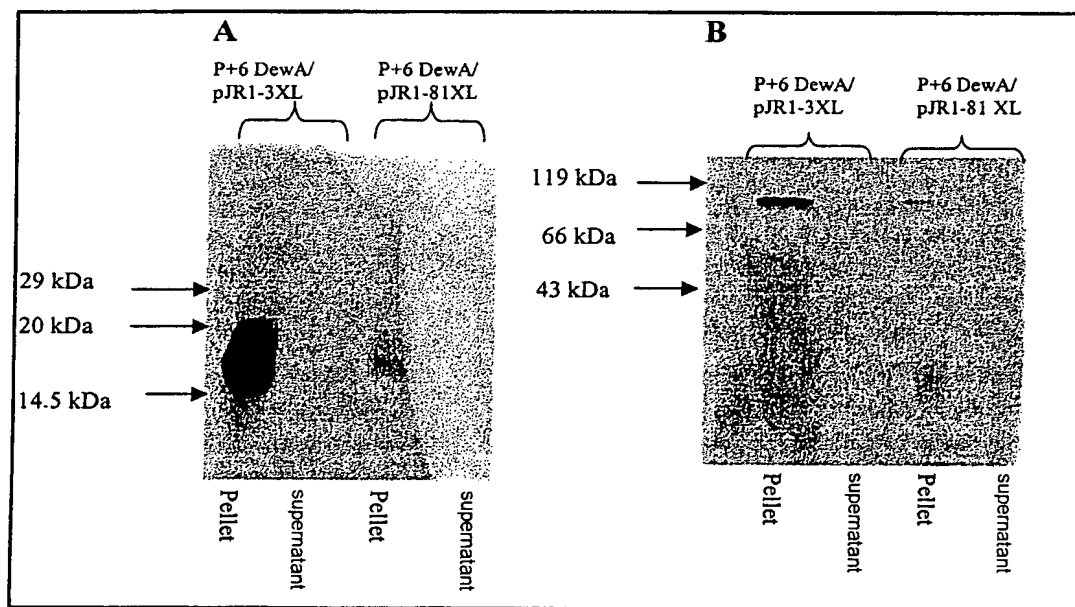
Fig.6**Fig.7**

Fig.8

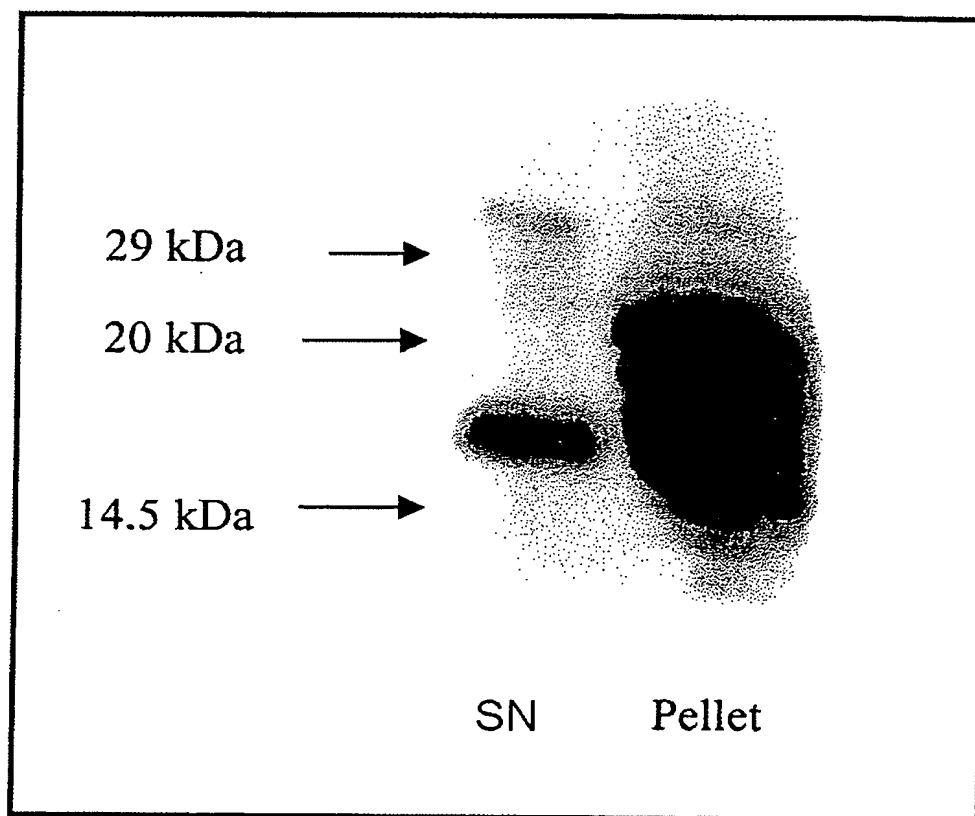


Fig. 9

A) *mfm1*⁺ gene**Sequence of the *mfm1*-pre-protein**

MDSMANSVSSSSSVNAGNKPAETLNKTVKNYTPKVPYMCVIA

Sequence of the *mfm1*⁺-gene

atggactcaa tggctaactc cgtttcttcc tctctgtcg tcaacgctgg caacaagcct
gctgaaactc ttaacaagac cgtaagaat tatacccccagggttcctta catgtgtgc attgcataa

***mfm1* mature M-pheromone**

YTPKVPYMC

DNA-Sequence of the mature *mfm1* M-pheromone

tatacccccagggttcctta catgtgt

B) *mfm2*⁺-gene**Sequence of the *mfm2*-pre-protein**

MDSIATNTHSSSIVNAYNNNPTDVVKTONIKNYTPKVPYMCVIA

Sequence of the *mfm2*⁺-gene

atggactcca ttgcaactaa cactcattct tcatccattg tcaatgccta caacaacaat
cctaccgatg ttgtaaaaac tcaaaacatt aaaaattata ctccaaagggt tccttatatg
tgtgtaattg cttaa

***mfm2* mature M-pheromone**

YTPKVPYMC

DNA-Sequence of the mature *mfm2* M-pheromone

tata ctccaaagggt tccttatatg tgt

C) *mfm3*⁺-gene**Sequence of the *mfm3*-pre-protein**

MDSMANTVSSSVVNTGNKPSETLNKTVKNYTPKVPYMCVIA

Sequence of the *mfm3*⁺-gene

atggactcaa tggctaacac tgtttcttcc tccgtcgta acaactggcaa caagccttct
gaaactctta acaagactgt taagaattat accccaagggt ttccttacat gtgtgtcatt gcataa

***mfm3* mature M-pheromone**

YTPKVPYMC

DNA-Sequence of the mature *mfm3* M-pheromone

tat accccaagggt ttccttacat gtgt

Fig. 10

Genomic sequence of the *RodA* gene

ATGAAGTTCT	CCATTGCTGC	CGCTGTCGTT	GCTTTGCGCG	CCTCCGTCGC	GGCCCTCCCT	CCTGCCCATG
ATTCCCAGTT	CGCTGGCAAT	GGTGTGGCA	ACAAGGGCAA	CAGCAACGTC	AAGTTCCCTG	TCCCCGAAAA
CGTGACCGTC	AAGCAGGCCT	CCGACAAGTG	CGGTGACCAG	GCCCAGCTCT	CTTGCTGCAA	CAAGGCCACG
TACGCCGGTG	ACACCACAAC	CGTTGATGAG	GGTCTTCTGT	CTGGTGCCCT	CAGCGGCCTC	ATCGGCGCCG
GGTCTGGTGC	CGAAGGTCTT	GGTCTCTTCG	ATCAGTGCTC	CAAGCTTGAT	GTTGCTGGTC	AGTTCTTCGA
AAATCACTTT	CGTGATGCCC	CAATGCTAAC	AATTACCAGT	CCTCATTGGC	ATCCAAGATC	TTGTCAACCA
GAAGTGCAAG	CAAAACATTG	CCTGCTGCCA	GAACTCCCCC	TCCAGCGCGG	TATGTTCCCT	TGTTTTACAG
CTTATTTCACT	TAAACCGATT	AATCTAACAA	CGCTCACAGG	ATGGCAACCT	TATTGGTGTC	GGTCTCCCTT
GCGTTGCCCT	TGGCTCCATC	CTCTAA				

DNA sequence of the open reading frame (ORF) of the *RodA* gene

ATGAAGTTCT	CCATTGCTGC	CGCTGTCGTT	GCTTTGCGCG	CCTCCGTCGC	GGCCCTCCCT	CCTGCCCATG
ATTCCCAGTT	CGCTGGCAAT	GGTGTGGCA	ACAAGGGCAA	CAGCAACGTC	AAGTTCCCTG	TCCCCGAAAA
CGTGACCGTC	AAGCAGGCCT	CCGACAAGTG	CGGTGACCAG	GCCCAGCTCT	CTTGCTGCAA	CAAGGCCACG
TACGCCGGTG	ACACCACAAC	CGTTGATGAG	GGTCTTCTGT	CTGGTGCCCT	CAGCGGCCTC	ATCGGCGCCG
GGTCTGGTGC	CGAAGGTCTT	GGTCTCTTCG	ATCAGTGCTC	CAAGCTTGAT	GTTGCTGTCC	TCATTGGCAT
CCAAGATCTT	GTCAACCAGA	AGTGCAAGCA	AAACATTGCC	TGCTGCCAGA	ACTCCCCCTC	CAGCGCGGAT
GGCAACCTTA	TTGGTGTGCG	TCTCCCTTGC	GTTGCCCTTG	GCTCCATCCT	CTAA	

Sequence of the *RodA* protein

MKFSIAAAVV	AFAASVAALP	PAHDSQFAGN	GVGNKGNSNV	KFPVPENVTV	KQASDKCGDQ	AQLSCCNKAT
YAGDTTIVDE	GLLSGALSL	IGAGSGAEG	GLFDQCSKLD	VAVLIGIQDL	VNQKCKQNTA	CCQNSPSSAD
GNLIGVGLPC	VALGSIL					

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